



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,384	07/27/2000	Lester F. Ludwig	COLB-002/01US	2926

23373 7590 12/30/2005
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

SELLERS, DANIEL R

ART UNIT PAPER NUMBER

2644

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/601,384

Applicant(s)

LUDWIG, LESTER F.

Examiner

Daniel R. Sellers

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 50-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 50-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 2-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Minami et al., U.S. Patent No. 5,555,310 (hereinafter Minami).
3. Regarding claim 2, Minami teaches a device with at least one microphone configured to perform adaptive stereo echo-canceling operations (Col. 3, lines 58-64, Col. 6, lines 56-63, and Fig. 3, units 101R and 101L). Minami also teaches that the device has synthetic aperture microphone processing capabilities, such as adjusting transfer functions between a plurality of microphones and speakers (Col. 4, line 66 – Col. 5, line 52).

4. Regarding claim 3, the further limitation of claim 2, see Minami

... wherein

the adaptive acoustic stereo echo-canceling and synthetic microphone processing capabilities are combined in a single packaging. (Fig. 9, units 510₁-510₄, 600, and 720)

It is inherent that the apparatus, taught by Minami, is combined in a single packaging.

5. Regarding claim 4, see the preceding argument with respect to claim 2.

A device for use in association with a multimedia system capable of reproducing at least audio signals at a multimedia workstation, the device

A) being associated with a plurality of microphones, and

B) including synthetic aperture microphone processing capabilities.

Minami teaches a multimedia system with these features using a plurality of microphones.

6. Regarding claim 5, the further limitation of claim 2, see Minami

Art Unit: 2644

... wherein

the synthetic aperture microphone processing capabilities include the capability to adjust a position of a spatial region corresponding to the area of maximum sensitivity of the synthetic aperture microphone function. (Col. 21, lines 28-65)

Minami teaches a system with these features.

7. Regarding claim 6, the further limitation of claim 2, Minami teaches a teleconferencing system, wherein it is inherent that the video and audio devices are in one housing (see Col. 1, lines 22-29 and Fig. 10).

8. Regarding claim 7, the further limitation of claim 6, Minami teaches a stereo echo canceling system for use in a teleconference system, which has reception and transmission capabilities (Fig. 3, unit 300). It is inherent that a video decoder is used in the display system that Minami teaches (Col. 15, lines 8-11 and Col. 25, lines 40-42).

Minami teaches an audio coder and decoder (Fig. 3, units 201 and 401).

9. Regarding claim 8, the further limitation of claim 6, Minami discusses transmission capabilities including analog and digital capabilities (Col. 1, lines 29-45).

10. Regarding claim 9, the further limitation of claim 8, Minami teaches analog reception through microphones and digital reception through a transmission channel (unit 300).

11. Regarding claim 10, the further limitation of claim 9, see the preceding argument with respect to claim 8. Minami inherently teaches at least a primary digital stream for transmitting the video signal in a teleconference system.

12. Regarding claim 50, the further limitation of claim 3, see the preceding argument with respect to claim 5. Minami teaches an adjustment of the sensitivity of microphones with respect to a spatial region.

Art Unit: 2644

13. Regarding claim 51, the further limitation of claim 4, see the preceding argument with respect to claim 5. Minami teaches this feature.

14. Regarding claim 52, the further limitation of claim 5, see the preceding argument with respect to claim 6. Minami teaches this feature.

15. Regarding claim 53, the further limitation of claim 52, see the preceding argument with respect to claim 7. Minami teaches these features.

16. Regarding claim 54, the further limitation of claim 7, see the preceding argument with respect to claim 8. Minami teaches these features.

17. Regarding claim 55, the further limitation of claim 54, see the preceding argument with respect to claim 9. Minami teaches these features.

18. Regarding claim 56, the further limitation of claim 55, see the preceding argument with respect to claim 10. Minami teaches these features.

19. Regarding claim 57, the further limitation of claim 2, see the preceding argument with respect to claims 6 and 8. Minami teaches a system that can couple to at least one of analog and digital audio and video networks.

20. Regarding claim 58, the further limitation of claim 7, see the preceding argument with respect to claim 57. Minami teaches these features.

21. Regarding claim 59, the further limitation of claim 58, see the preceding argument with respect to claim 9. Minami teaches these features.

22. Regarding claim 60, the further limitation of claim 59, see the preceding argument with respect to claim 10. Minami teaches these features.

Response to Arguments

23. Applicant's arguments filed September 21, 2005 have been fully considered but they are not persuasive. See the preceding arguments with respect to 35 USC 102.

24. In response to applicant's arguments, the recitation in claim 2 of "a multimedia system" and a "multimedia workstation" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

25. Regarding claim 2, Minami does not specifically refer to the teachings as a synthetic aperture microphone system, however the system as taught modifies transfer functions between microphones input and speakers output. This modification makes it possible to perform stereo echo canceling and inherently creates a system that has a synthetic maximum sensitivity with respect to a spatial region. This is treated as synthetic aperture microphone *capabilities*.

26. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "[a] system that... has unique properties that enable it to act like an acoustic version of a phased array receiving antenna." (Remarks, p. 7, lines 3-4)) are not recited

in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chu et al., U.S. Patent No. 5,664,021, Marash, U.S. Pat. No. 5,825,898, and Benesty et al., U.S. Patent No. 5,828,756.

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel R. Sellers whose telephone number is 571-272-7528. The examiner can normally be reached Monday to Friday, 9am to 5:30pm.

Art Unit: 2644

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DRS



HUYEN LE
PRIMARY EXAMINER